

ES&H manual

Environment, Safety, and Health

Volume III

Part 33: Ecological and Cultural Resources

33.2

Sensitive and Protected or "Special Status" Species

(Formerly ECM C14)

Recommended for approval by the ES&H Working Group

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New document or new requirements

Approval date: September 22, 1999
Editorial Update: April 1, 2001

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This work performed under the auspices of the U.S. Department of Energy by University of California Lawrence Livermore National Laboratory under Contract W-7405-ENG-48

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* Minor revision

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Sensitive and Protected or "Special-Status" Species

1.0 Introduction

The Federal Endangered Species Act (ESA) was passed to conserve the ecosystems of federally listed threatened or endangered species and to require interagency consultation on federally sponsored or approved activities that may harm listed endangered or threatened species or their habitat. Its objective is to bring populations of listed species to healthy levels. The California Endangered Species Act, passed in 1984, has the same objective for native California species on the state Endangered or Threatened Species lists. The U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Game (CDFG) implement the federal and state Endangered Species Acts. Each agency has published a list of species that are candidates for endangered or threatened status and that are also protected under the respective acts. In general, Lawrence Livermore National Laboratory (LLNL) activities with effects extending outside of buildings, and construction or other ground-disturbing activities (especially in previously undeveloped locations), could have an impact on these protected species or their habitats.

Certain nonlisted species may also receive special consideration under several laws and agreements established between the University of California (UC) and the U.S. Department of Energy (DOE)/federal or state species trustee agencies. Actions by LLNL potentially affecting species that are formally being proposed for listing on either state or federal lists ("proposed species") are given a greater degree of attention during the consultation process by the state and federal implementing agencies. For example, the presence of California-sensitive species at LLNL's Site 300, such as the American badger and the Western burrowing owl, results in specific mitigation measures that must be implemented by LLNL prior to ground-disturbing activities. These mitigation measures are part of the basis for certification of the Environmental Impact Report (EIR) portion of the *Final Environmental Impact Statement and Environmental Impact Report for Continued Operation of Lawrence Livermore National Laboratory and Sandia National Laboratories, Livermore, August 1992*. (See the Mitigation and Monitoring Reporting Program for Continued Operation of Lawrence Livermore National Laboratory, August 1992.)

Several of these 1992 mitigation measures are now being applied to LLNL Livermore site as well as Site 300 projects because the burrowing owl has been identified as using the north and west buffer zones as nesting habitats.

1.1 Regulatory Summary

Under the federal and California ESAs, federal and state agencies must consult with the USFWS and the CDFG, respectively, to ensure that any action carried out by DOE or UC is not likely to jeopardize the continued existence of any endangered or threatened species or habitat. If initial consultation indicates that no sensitive species occur in the vicinity, no further action is required. DOE, UC, and LLNL may use the procedure called "informal consultation" with USFWS when they believe that listed species would not be affected by a proposed project. Informal initial consultations are also conducted with the USFWS and the CDFG if sensitive (but "unlisted") species protected under other acts (such as the Migratory Bird Treaty Act) may be impacted by proposed projects.

A Biological Assessment (BA) is required if federally listed species or critical habitat may be present in the area affected by any construction activity. The BA is usually prepared in conjunction with National Environmental Policy Act (NEPA) documentation (especially an Environmental Impact Statement, or EIS). [See Document 3.6, "Environmental Planning," in the *Environment, Safety, and Health (ES&H) Manual* for a discussion of EIS/EIR.] The BA evaluates the potential effects of the project on any listed species and any designated critical habitat that may be present in the project area. It also includes measures designed to mitigate potential impacts. The USFWS uses the BA to determine if further consultation is necessary.

Formal consultation concludes with USFWS's issuance of a "biological opinion (BO)." If it is determined that the proposed action is not likely to adversely affect listed species or critical habitat (and the USFWS concurs), then consultation can be terminated. An opinion of "no jeopardy" indicates that the proposed project is not likely to jeopardize the continued existence or adversely modify critical habitat of a species. Mitigation measures may be required to minimize adverse effects, and an authorization to "take" listed species may be included in the biological opinion. A "jeopardy" opinion indicates that the project, including proposed mitigation, is likely to jeopardize the continued existence of a species. After the USFWS issues the biological opinion, the Responsible Individual decides whether and how to proceed with the proposed project. If a jeopardy opinion is issued and the federal agency decides it must nevertheless conduct the project in a manner that jeopardizes the species, an exemption is sought. However, such exemptions are rarely given; when given, they are usually only for projects with strong national importance.

Similarly, as required by the California Environmental Quality Act (CEQA), consultations between LLNL/UC and the CDFG may also have to occur, and written findings of the CDFG would be obtained when preparing a CEQA EIR. If a project may affect species listed under both California and federal laws, the CDFG generally defers to the federal agency and provides input to the federal agency biological opinion.

2.0 Applicability to LLNL Activities

Each project that involves construction or ground-disturbing activities at Site 300 or in the main site buffer zones, arroyos, or drainage channels/retention basin must be evaluated for potential impact to sensitive natural resources. Additionally, projects to be conducted close to certain other habitat features (such as particular groups of trees) will also need pre-activity surveys for the presence of roosting or nesting protected birds. Responsible Individuals should contact the wildlife biologist to discuss these requirements once the project site has been identified.

A detailed BA was prepared as part of the *Final Environmental Impact Statement and Environmental Impact Report for Continued Operation of Lawrence Livermore National Laboratory and Sandia National Laboratories, Livermore, August 1992* (DOE/EIS-0157, UC/EIR SCH90030847), which included proposals for several planned construction projects at LLNL. The USFWS concurred with LLNL's determination that continued operation of LLNL and near-term proposed projects (within five to 10 years) would not affect any federal or state threatened, endangered, or other sensitive species, given the implementation of the proposed mitigation measures. The CDFG concluded that the BA did "a good job" of assessing impacts, and it recommended evaluation or mitigation for activities involving ground squirrel control and wetland destruction at Site 300.

Similarly, a BA was prepared and a BO was issued in 1997 in conjunction with the planning to establish a program to maintain flood volume/flow capacity of the Arroyo Las Positas in the LLNL Livermore site, which is a habitat of the California red-legged frog (*Rana aurora draytonii*), a federally threatened species. The BA was amended in 1998 and an amended BO was then issued by the USFWS. A BA that governs fire trail maintenance activities near blue elderberry bushes at Site 300 has also been prepared.

The process for considering potential impacts to sensitive species is presented in Figure 1. As a result of surveys conducted for the BAs and observations made by the LLNL wildlife biologist, 26 special-status (endangered, threatened, proposed, state species of special concern, and state-protected) species have been observed at Site 300, and 11 have been observed at the LLNL Livermore site. At the Livermore site, surveys identified the white-tailed kite, a state-protected raptor that nests in tall trees bordering the site.

At Site 300, one 160-acre area has been formally designated as a critical habitat for the federally endangered large-flowered fiddleneck (*Amsinckia grandiflora*). In 1997, the only known population of diamond-petaled California poppy (*Eschscholzia rhombipetala*) was discovered in the southwest corner of Site 300. No other populations of this rare species had been observed in the U.S. since 1950. A management plan for this species/habitat is being developed.

Potential habitats for three additional sensitive species (valley elderberry longhorn beetle, San Joaquin kit fox, and Alameda whipsnake), and known habitat for red-legged frogs and golden eagles, were also observed at Site 300.

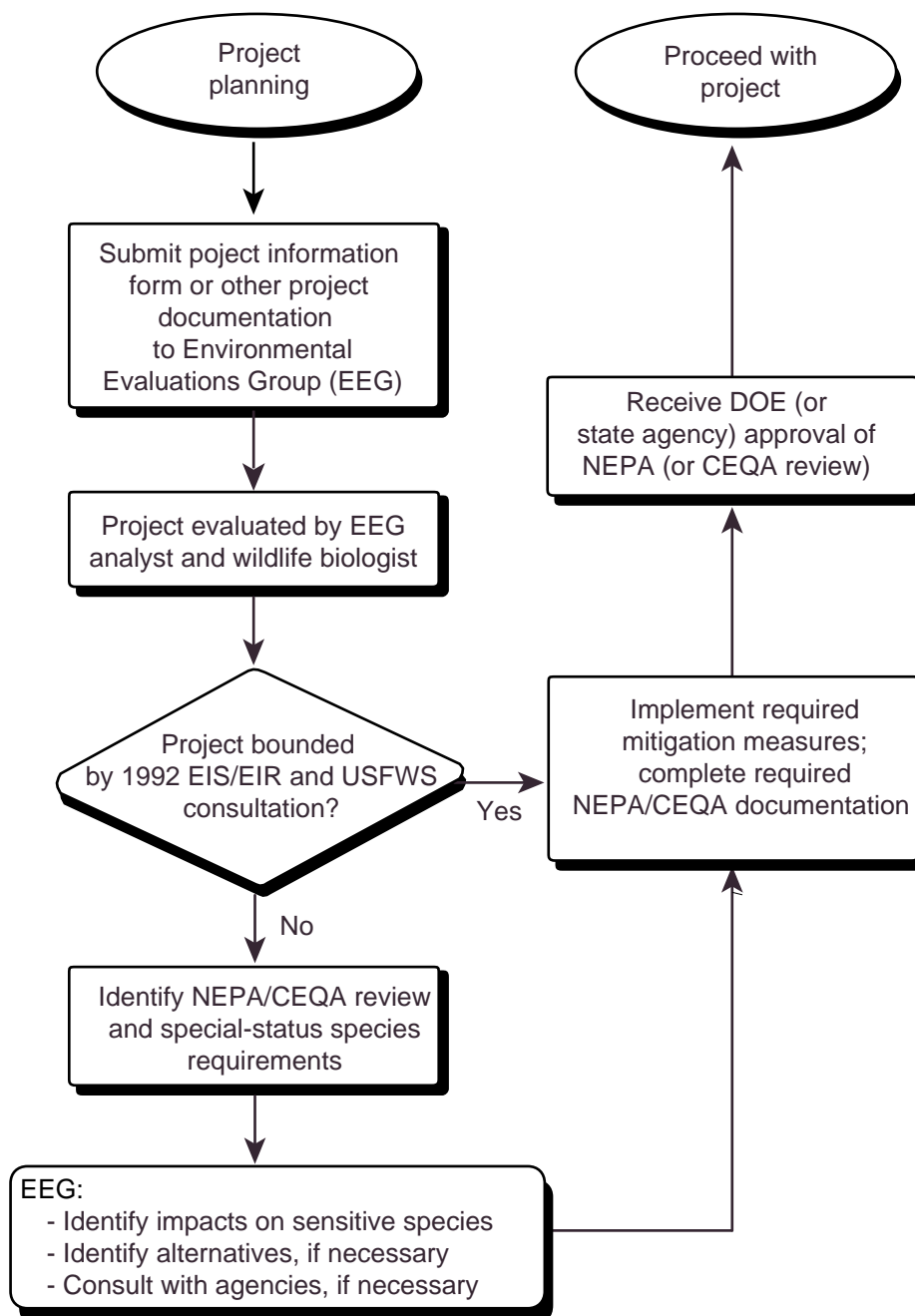


Figure 1. Sensitive species impact evaluation and consultation process.

Twenty-three mitigation measures have been implemented, including: designations of restricted areas around elderberry bushes (to protect the habitat of the federally listed valley elderberry longhorn beetle); requirements for preconstruction surveys to avoid

potential harm to San Joaquin kit foxes, Western burrowing owls, and American badgers at Site 300; and other Livermore site and Site 300 operational policies designed to prevent or minimize impacts on sensitive species. For a more thorough discussion of LLNL sensitive species habitats and locations, consult Appendix F of the EIS/EIR (1992) or call the Environmental Evaluations Group (EEG) wildlife biologist.

3.0 Process for Compliance

Plant Engineering has a soil excavation, grading, and/or drilling permit process in place for all such Site 300 projects that may involve surface disturbance and for main site projects in certain sensitive areas, such as the buffer zones and near the arroyos. The wildlife biologist reviews these permit applications as another mechanism to ensure that proposed projects that could impact sensitive natural resources are identified before the project starts.

In most cases, the existing information on the locations of sensitive species at LLNL's Livermore site and at Site 300 will facilitate quick determinations of potential impacts and application of possible mitigation measures. If it is necessary to prepare a BA for the project, the length of the consultation process can be highly variable and dependent on the complexity of the issues. A minimum of 135 days is usually required before a BO is received from the USFWS, for example, after submission of a BA.

During the initial planning of a project, the Responsible Individual should contact an analyst from the EEG. This name can be provided to program personnel from the ES&H Team environmental analyst. The EEG analyst has a questionnaire form that will assist the analyst and the Responsible Individual in determining the potential impacts of a project on sensitive species. This questionnaire or form called a Project Information Form can either be completed verbally or by paper or electronically. This information is used to determine if further action is required with regard to sensitive species. Figure 1 shows the sequence of events. In some cases a phone call and a verbal discussion are all that is necessary. The EEG staff can assist in project development and planning to avoid a costly schedule delay or later project modifications, and can help develop mitigation measures to reduce impacts to listed or sensitive species.

4.0 Work Standards

4.1 Work Smart Standards

50 CFR 17, Endangered and Threatened Wildlife and Plants

50 CFR 402, Interagency Cooperation—Endangered Species Act of 1973, as amended

16 USC § 668, Eagle Protection Act

16 USC §§ 701-715, Migratory Bird Treaty Act (MBTA) of 1918

16 USC § 1531 et seq., Endangered Species Act of 1973

CA Fish and Game Code §§ 2050-2055, CA Endangered Species Act (CESA)

4.2 Other Requirements

Environmental Services Division Administrative Report 86-1. Guidelines for Consulting with the California Department of Fish and Game. 1986

California Fish and Game Codes, 31 (Stats 1957, c. 456)

5.0 Resources for More Information

5.1 LLNL Contacts

The LLNL point of contact for compliance with the Endangered Species Act and related acts is the Environmental Protection Department wildlife biologist. The ES&H Team environmental analyst can provide you the name of your wildlife biologist.